



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/579,400 | 05/13/2006 | Gregg M. Sichner | 04AB024 | 1372 |

7590 10/07/2008
Rockwell Automation Inc
Susan M Donahue
1201 South Second Street
Milwaukee, WI 53204

| |
|----------|
| EXAMINER |
|----------|

KNOLL, CLIFFORD H

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2111

| | |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

10/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/579,400 | Applicant(s) SICHNER ET AL. | |
| | Examiner CLIFFORD H. KNOLL | Art Unit 2111 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/13/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. *Claims 1-3, 5, 8, 14, 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Licht (US 20030050093 A1).*

Regarding claim 1, Licht discloses a primary wireless device and the associated industrial controller (paragraph 18, “15”), the secondary wireless device connected by a wireless backplane link (paragraph 19), where at least one input/output module where an associated field device is adapted to communicate with the controller (e.g., paragraph 20, “22”).

Regarding claim 2, Licht also discloses the plurality of secondary wireless devices with input/output modules, each secondary wireless device connected by a plurality of primary wireless backplane links (e.g., paragraph 20, “22”, “27”, “31”).

Regarding claim 3, Licht also discloses the secondary wireless devices are uniquely identified (e.g., paragraph 19, “similarly equipped with the RFID chip set”).

Regarding claim 5, Licht also discloses selecting the configuration device (e.g., paragraph 18, “may also be a part of the schematic”)

Regarding claim 8, Licht discloses the “some of said plurality ... in different environments” (e.g., paragraph 12, “remote location”).

Regarding claim 14, Licht also discloses the backplane comprises a radio frequency (e.g., paragraph 4).

Regarding claims 17 and 18, Licht also discloses the secondary wireless devices comprise a backplane and the module is physically connected (e.g., Figure 3 “22”; paragraph 20).

Regarding claim 19, Licht also discloses the network adapter and primary wireless device (e.g., paragraph 20, “31”) remote from the controller (e.g., paragraph 17; paragraph 20, “PLC”).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. *Claims 4, 6-7, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Licht, as applied supra, in view of Defossé (US 20030003865 A1).*

Regarding claim 4, Licht does not expressly mention the particular nature of the communication; however Defossé discloses the communication of time-sensitive (e.g., paragraph 24, “vending events”) and time-insensitive (e.g., paragraph 24, “equipment parameters”) data to the primary wireless device. It would have been well known to use

Art Unit: 2111

Defossé with Licht because Defossé teaches the advantages of using both forms of data for the purposes of control in a system such as Licht.

Regarding claim 6, Licht does not expressly teach the use of redundant paths; however, Defossé does disclose redundant wireless alternatives from the primary wireless device to the secondary devices (e.g., paragraph 11). It would have been well known to combine Defossé with Licht because Defossé teaches the advantages of using a wireless connection such as Defossé as a redundant connection.

Regarding claim 7, Licht does not, but Defossé expressly teaches simultaneous use of wireless backplane links (e.g., paragraph 11).

Regarding claim 13, Licht does not mention the modules; however Defossé discloses the block module (e.g., paragraph 24, (18)) and interconnected modular input/output modules (e.g., paragraph 32, “couple one or more peripherals...”). It would have been well known to combine Defossé with Licht because Defossé teaches the advantages of using modular components in a control system such as Licht.

Regarding claim 15, Licht also discloses dissimilar backplane links (e.g., paragraphs 34, 41).

3. *Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Licht, as applied supra, in view of standard use of environmental standards when indicated, as evidenced by “Flexible Electronic Systems” (IDS 5/13/06, citation AQ).*

Regarding claim 9, Licht discloses the use in industrial control settings (e.g., paragraph 1) and remote environments (e.g., paragraph 2). Licht does not expressly mention the particular environments; however, the Examiner takes Official Notice that it

Art Unit: 2111

is well known to use environmental industrial protection standards according to the environment of the remote location, as evidenced by “Flexible Electronic Systems”, which discloses standard protection, such as IP-20 and IP-67, of components in an industrial setting. It would have been obvious to one of ordinary skill in the art to combine environmental standards with Licht, because these standards provide reliability according to the specified environment.

4. *Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Licht and standard use of environmental standards when indicated, as applied supra, in view of Mancini (US 6583982 B2).*

Regarding claim 10, Licht does not expressly mention the particular environment of the at least one device; however it is well known to use environmental industrial standards such as IP-20 and IP-67. Licht does not expressly mention the particular environment as an explosive environment; however Mancini discloses use of an intrinsically safe wireless device (e.g., col. 5, lines 27-31) in an explosive environment (e.g., col. 2, lines 46-49). It would have been well known to use Mancini with Licht because Mancini teaches the advantages of using a wireless secondary device in explosive industrial environments.

5. *Claims 11-12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Licht, as applied supra, in view of Canada (US 6301514 B1).*

Regarding claim 11, Licht does not expressly mention visual display of the unique identifier; however Canada discloses display of this (e.g., col. 11, lines 61-65;

Art Unit: 2111

col. 12, line 41). It would have been well known to combine Canada with Licht because Canada shows the well-known technique of field configuration in a system such as Licht.

Regarding claim 12, Licht does not expressly mention a wireless link quality indicator; however Canada discloses this (e.g., col. 13, lines 46-51). It would have been well known to combine Canada with Licht because Canada shows the well-known technique of field configuration in a system such as Licht.

Regarding claim 20, Licht does not expressly mention a master-servant form of operation; however this would have been well known to use, as disclosed in Canada; who discloses the particular form of master-servant communication (e.g., col. 9, lines 33-39). It would have been well known to use Canada with Licht because Canada discloses a particular form of communication useful in industrial controllers such as Licht.

6. *Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Licht, as applied supra, in view of Jollota (US 7076274 B2), further in view of Canada.*

Regarding claim 16, Licht does not disclose a visual display that outputs an overall topology; however Jollota discloses this (e.g., col. 10, lines 4-9). Jollota does not expressly disclose a selectively connectable user interface device to output a visual or audio signal; however Canada discloses this (e.g., col. 5, lines 49-59). It would have been well known to combine Jollota with Licht because Jollota discloses the means to configure wireless backplane control systems, such as Licht. It would have been

Art Unit: 2111

obvious to combine Canada with Jollota because Canada teaches an express means to configure a system such as Jollota.

7. *Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Licht, as applied supra, in view of Keyes (US 20030171827 A1).*

Regarding claim 21, Licht does not expressly mention a peer-to-peer form of communication; however this would have been well known to use, as disclosed in Keyes; who discloses the particular form of master-servant communication (e.g., paragraph 63). It would have been well-known to use Keyes with Licht because Keyes discloses a particular form of communication useful in industrial controllers such as Licht.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CLIFFORD H. KNOLL whose telephone number is (571)272-3636. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2111

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Clifford H Knoll/
Clifford H Knoll
Primary Examiner
Art Unit 2111

chk